Sun™ IB Switch 9P Hardware Installation Guide

Sun Microsystems, Inc.
www.sun.com

Part No. 819-7246-10
September 2006, Revision A

Submit comments about this document at: http://www.sun.com/hwdocs/feedback

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, California 95054, U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more of the U.S. patents listed at http://www.sun.com/patents and one or more additional patents or pending patent applications in the U.S. and in other countries.

This document and the product to which it pertains are distributed under licenses restricting their use, copying, distribution, and decompilation. No part of the product or of this document may be reproduced in any form by any means without prior written authorization of Sun and its licensors, if any.

Third-party software, including font technology, is copyrighted and licensed from Sun suppliers.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and in other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, Java, AnswerBook2, docs.sun.com, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and in other countries.

All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and in other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

U.S. Government Rights—Commercial use. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2006 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara, Californie 95054, États-Unis. Tous droits réservés.

Sun Microsystems, Inc. possède les droits de propriété intellectuels relatifs à la technologie décrite dans ce document. En particulier, et sans limitation, ces droits de propriété intellectuels peuvent inclure un ou plusieurs des brevets américains listés sur le site http://www.sun.com/patents, un ou les plusieurs brevets supplémentaires ainsi que les demandes de brevet en attente aux les États-Unis et dans d'autres pays.

Ce document et le produit auquel il se rapporte sont protégés par un copyright et distribués sous licences, celles-ci en restreignent l'utilisation, la copie, la distribution, et la décompilation. Aucune partie de ce produit ou document ne peut être reproduite sous aucune forme, par quelque moyen que ce soit, sans l'autorisation préalable et écrite de Sun et de ses bailleurs de licence, s'il y en a.

Tout logiciel tiers, sa technologie relative aux polices de caractères, comprise, est protégé par un copyright et licencié par des fournisseurs de Sun.

Des parties de ce produit peuvent dériver des systèmes Berkeley BSD licenciés par l'Université de Californie. UNIX est une marque déposée aux États-Unis et dans d'autres pays, licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, Java, AnswerBook2, docs.sun.com, et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc. aux États-Unis et dans d'autres pays.

Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux États-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface utilisateur graphique OPEN LOOK et Sun™ a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox dans la recherche et le développement du concept des interfaces utilisateur visuelles ou graphiques pour l'industrie informatique. Sun détient une license non exclusive de Xerox sur l'interface utilisateur graphique Xerox, cette licence couvrant également les licenciés de Sun implémentant les interfaces utilisateur graphiques OPEN LOOK et se conforment en outre aux licences écrites de Sun.

LA DOCUMENTATION EST FOURNIE "EN L'ÉTAT" ET TOUTES AUTRES CONDITIONS, DÉCLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES DANS LA LIMITE DE LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE À LA QUALITÉ MARCHANDE, À L'APTITUDE À UNE UTILISATION PARTICULIÈRE OU À L'ABSENCE DE CONTREFAÇON.

Please
Recycle

Contents

Installing the Hardware 1

Contents of Package 1

List of Contents 1

Contents Cable and Rackmount Kit 3

Preparing the Switch for Rack Mounting 3

▼ To Prepare the Switch for Rack Mounting 4

Removing and Replacing the Power Supply 9

▼ To Remove the Power Supply 10

▼ To Replace the Power Supply 11

Installing the Hardware

This chapter describes how to mount the Sun IB switch into a rack and plug in the cables. This chapter contains the following sections:

- "Contents of Package" on page 1
- "Preparing the Switch for Rack Mounting" on page 3
- "Removing and Replacing the Power Supply" on page 9

Contents of Package

When you unpack your Sun IB switch, the box should contain the following items:

List of Contents

- The Sun IB switch
- Cable Bracket and Rackmount kit
- Documentation: this manual, *Sun™ IB Switch 9P Hardware Installation Guide*

FIGURE 1 Contents Included in the Box

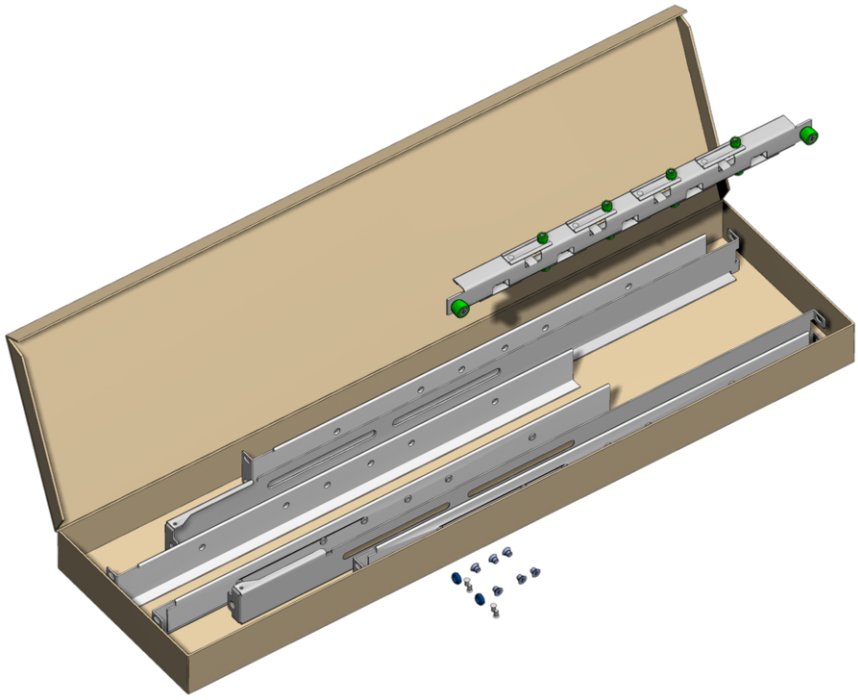


FIGURE 2 Contents of Cable and Rackmount Kit

Contents Cable and Rackmount Kit

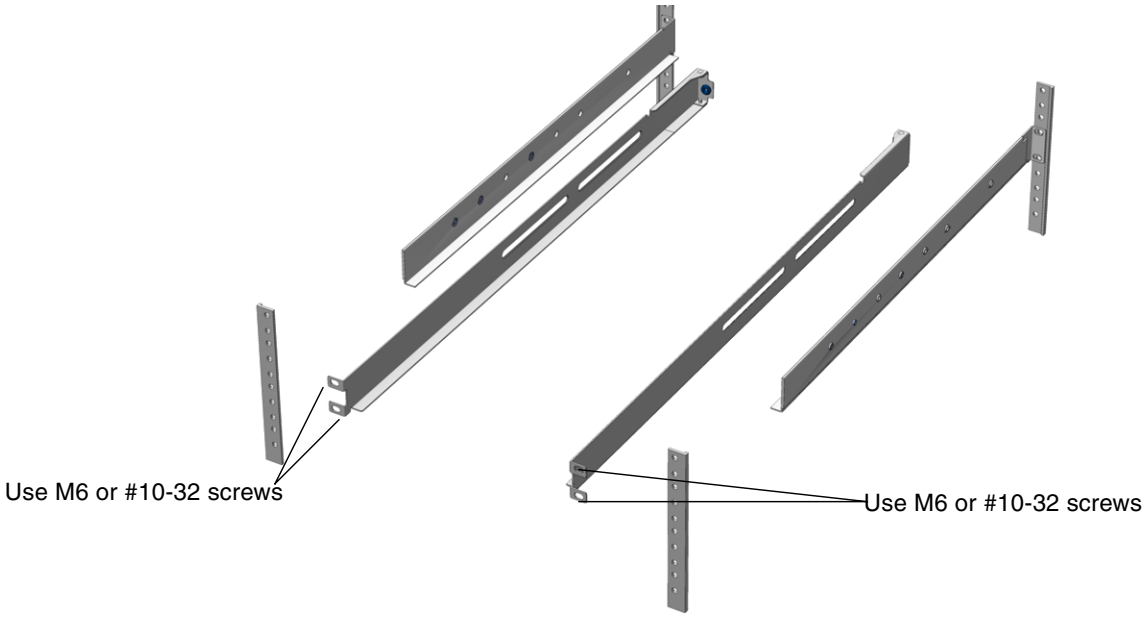
- Cable management bracket
- Two pairs of rack rails
- Ten M6 screws to attach the rails to the rack, if necessary
- Ten #10-32 screws to attach the rails and switch to the rack, if necessary

Preparing the Switch for Rack Mounting

The Sun IB switch fits into any 19-inch rack. The rack rails can be adjusted to fit into a rack depth of 560mm (22.05") to 920mm (36.22"). These dimensions are from outside the front post to outside the rear post.

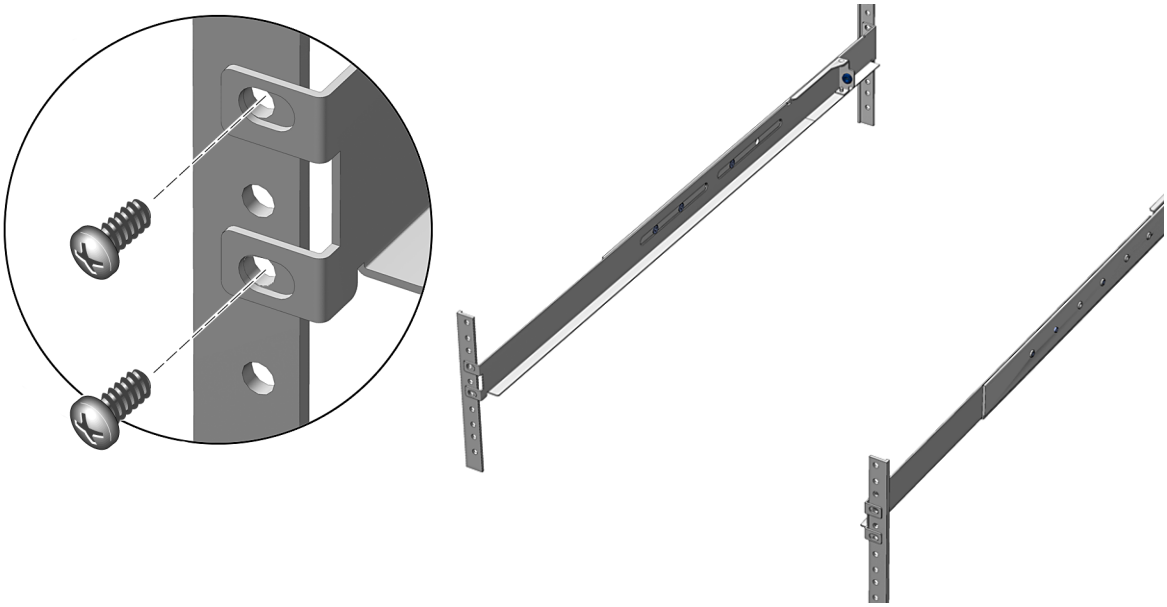
▼ To Prepare the Switch for Rack Mounting

1. **Attach the two pairs of rails to the rack.**



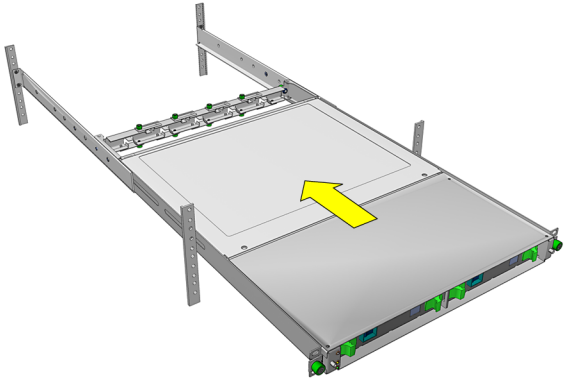
   a. **Adjust the rear rail to the depth of the rack you're using and install it, using the two M6 or #10-32 screws on each side.**

      The illustration shows the rails being installed in a rack that requires separating the rails. For most racks, the rails can be adjusted to the correct depth by loosening the screws and expanding the rails to fit the rack.

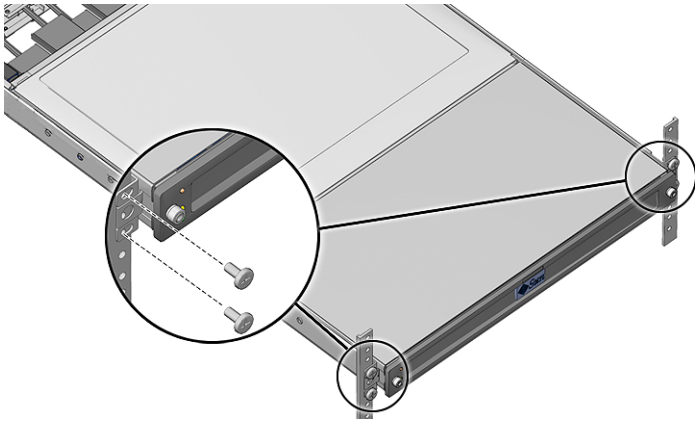


b. Attach the left pair of rails, then the right pair, leaving rear screws loose so you can adjust the depth of the rails after you slide the switch onto the rails.

The rear ends of the rails have flanges that must overlap the back corners of switch to secure the back end of switch to the rails.



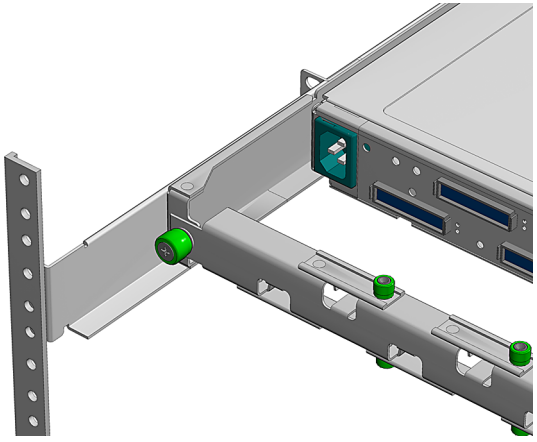
2. Slide the switch onto the rails.



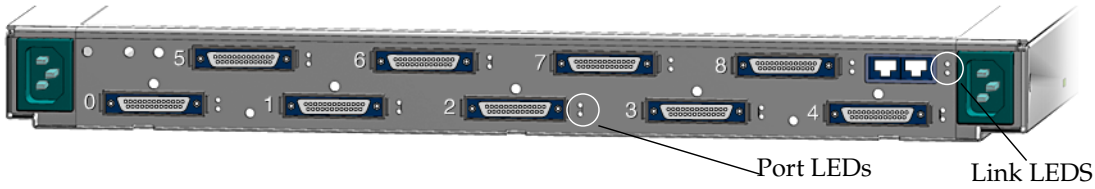
3. **Mount the front to the rack, using two #10-32 or M6 screws to secure the front of the switch to the front rack rails.**

   The system rear is constrained by rack rails. Rack bracket tabs are printed black so they aren't so visible. Chassis tabs are silver so that you can differentiate which screw to remove, if you need to remove the switch from the rack

4. **Slide the back ends of rack rails toward switch, so that rear rail flanges overlap switch rear corners. Tighten the rear rail screws to the rear rack posts.**



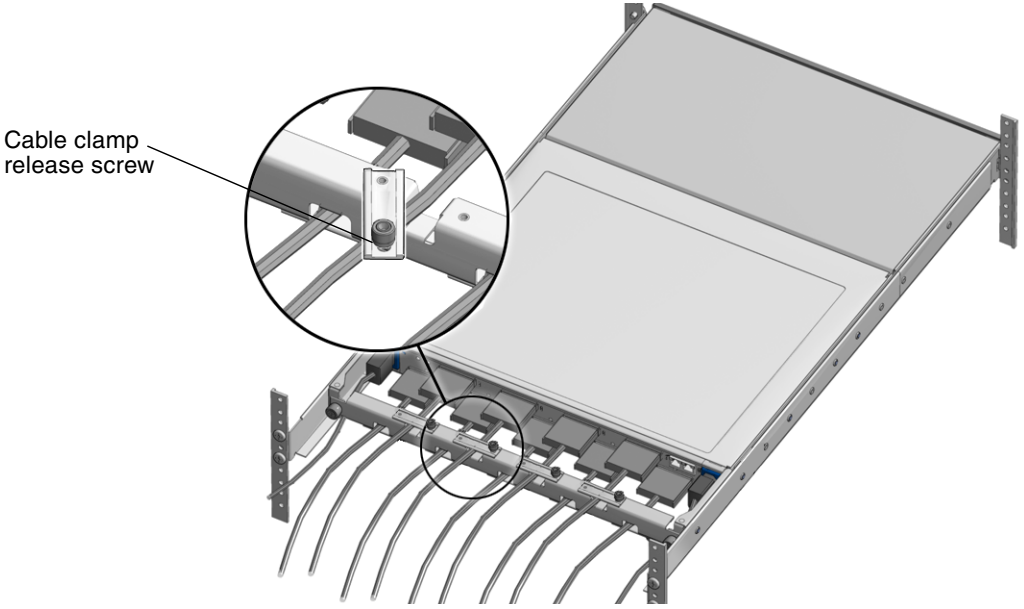
5. **Install the cable management bar to the rack rails, using captive screws on each side of the cable management bar.**



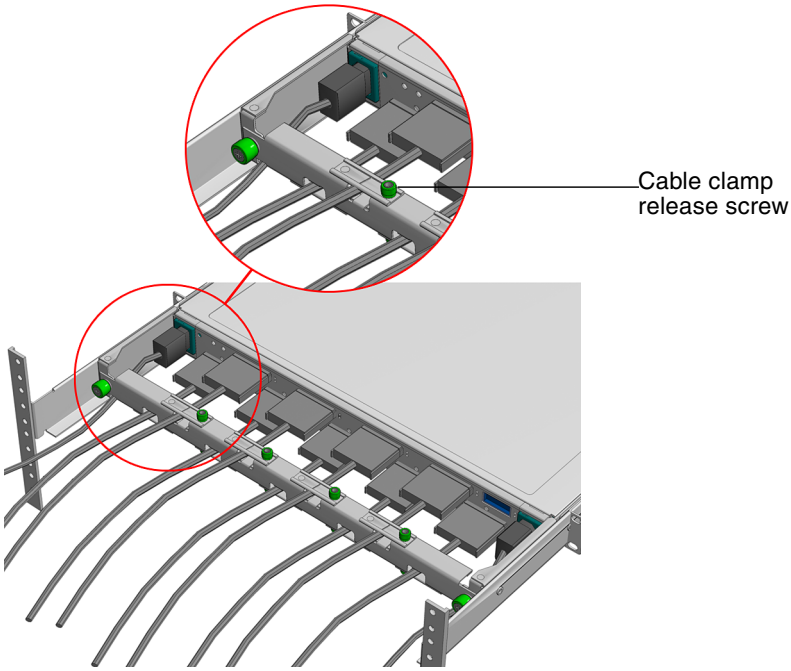
6. **Identify the ports you want to connect to.**

   A single Sun InfiniBand switch can be connected to nine HCA ports with 12x-to-4x cable, to another switch with 12x-to-12x cable or a combination thereof. No pair of connected ports can belong to the same NodeGUID (that is, the same HCA instance).

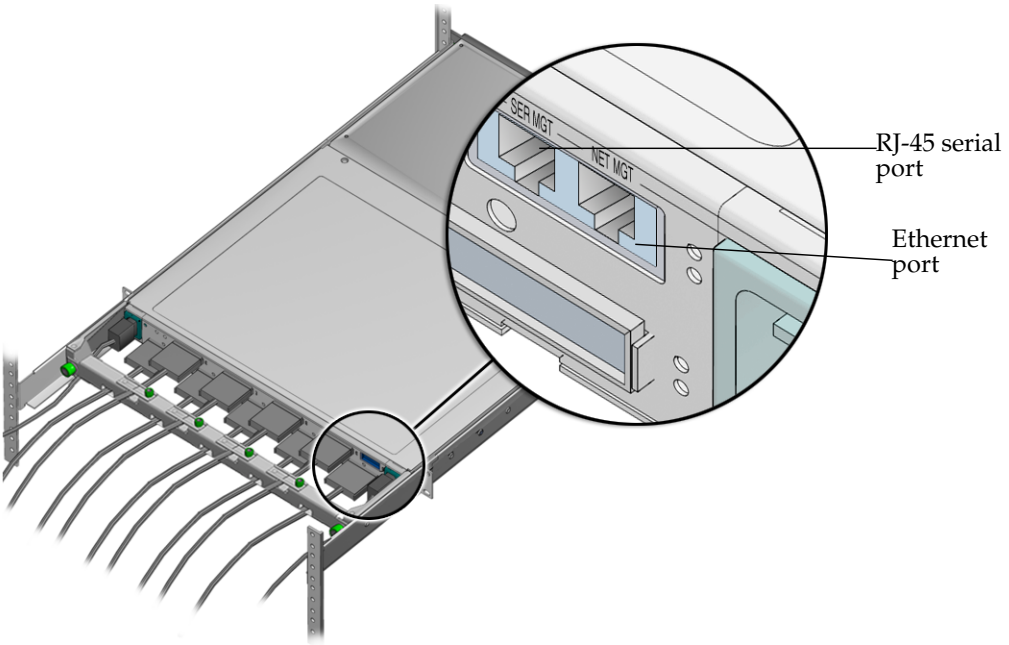
Note – To the right of each port are two LEDs: one amber and one green. The amber LED lights only when the port requires attention. A steady light from the green LED shows that the link is up, blinking indicates InfiniBand activity. For more information about both port and link LEDs refer to the *Sun™ IB Switch 9P Administration Guide*, available at the following URL:
`http://www.sun.com/products-n-solutions/hardware/docs/Network_Connectivity/`



7. **Loosen the cable clamp release screw and pivot the clamp outward so you can plug in the cables, placing the cord into the slot in cable management bar.**



8. **Pivot the cable clamp back over the slot and tighten the captive screw.**



9. **Connect one end the RJ-45 serial cable to the serial port of the switch and the other end to the console you will use to manage the switch.**

   Your hardware installation is now complete.

Note – Refer to the *Sun InfiniBand Switch Nine Port Administration Guide* for instructions on how to configure and manage the Sun IB switch. You can download the administration guide from the following URL:
http://www.sun.com/products-n-solutions/hardware/docs/Network_Connectivity/

Removing and Replacing the Power Supply

The power supply units are the only customer replaceable units (CRUs) in the switch.

▼ To Remove the Power Supply

1. **Identify the power supply unit (PSU) you want to remove.**

   PSUs are identified as PS0 or PS1.

2. **Access the ALOM command line interface (CLI).**

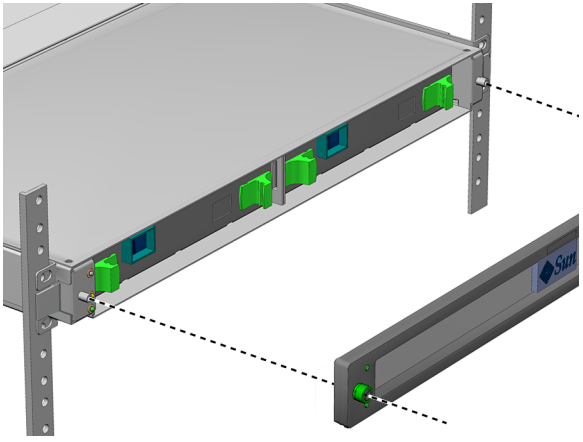
   You can access the ALOM CLI either through the serial port console or by telnet.

3. **Issue a `removefru` command from the ALOM CLI:**

```
sc> removefru ps0
Are you sure you want to remove PS0(y/n): y
```

   The `removefru` command lights the blue Ready-to-Remove LED on the designated PSU, preventing confusion about which PSU to remove.

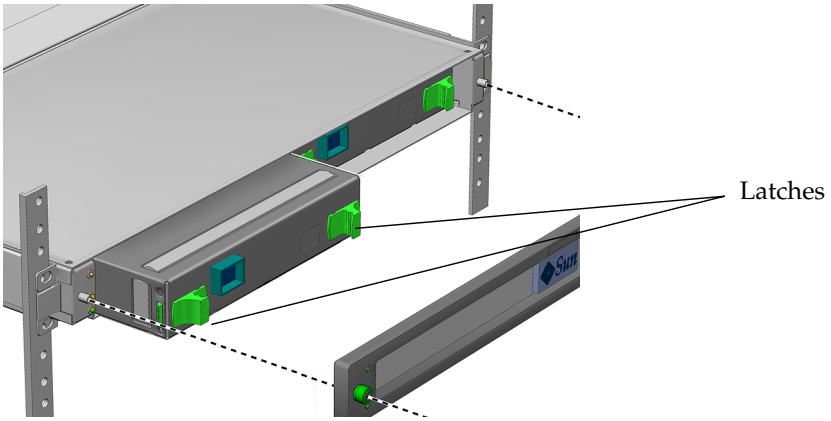
4. **Unscrew the screws in the front panel.**



5. **Remove the front panel of the switch.**

   The switch contains two removable PSUs.

6. **If the blue Ready-to-Remove LED is lit, pull out the PSU.**



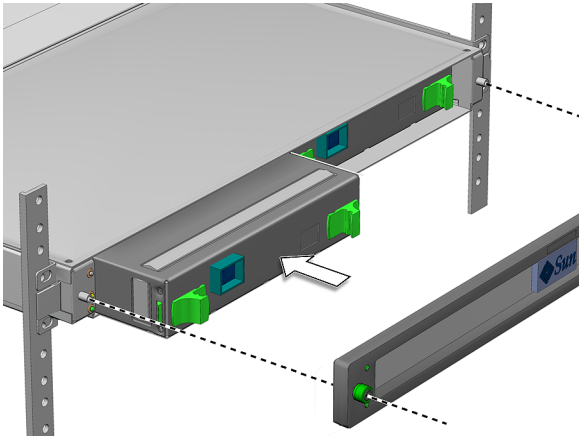
7. **Press the latches toward the center of power supply and pull forward to remove it.**

   One power supply can be missing from the switch indefinitely without damage to the switch or loss of use.

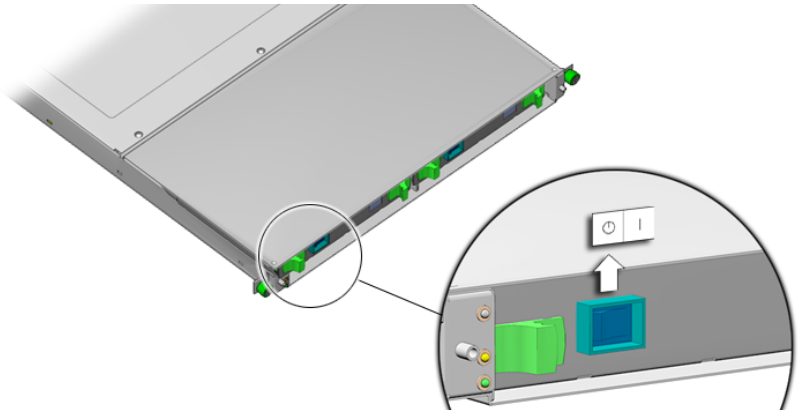
Note – Without the second power supply unit, the switch has no failover function.

▼ To Replace the Power Supply

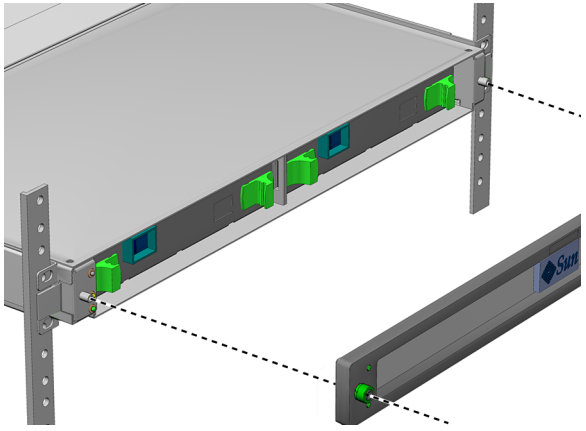
1. **Holding the PSU by the front edge, slide it into the slot.**



2. **Gently but firmly push the power supply into the switch until you hear it click into place.**



3. **Switch the power supply switch to on (|).**



4. **Remount the front panel.**